Sherwood (W.)

MEDICAL EDUCATION FOR THE PEOPLE AND THE PROFESSION.

AN

# INTRODUCTORY LECTURE,

DELIVERED BY

## W. SHERWOOD, M.D..

PROF. OF SPECIAL, SURGICAL, AND PATHOLOGICAL ANATOMY, IN THE ECLECTIC MEDICAL INSTITUTE OF CINCINNATI.

BEFORE THE

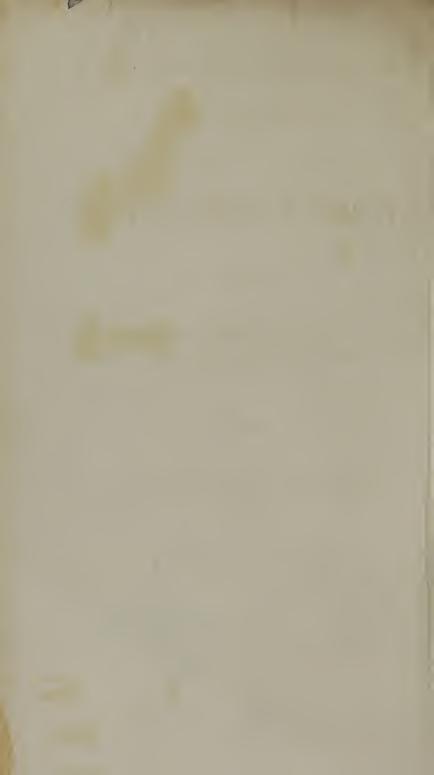
# ECLECTIC MEDICAL CLASS,

IN GREENWOOD HALL, NOV. 10, 1852

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CINCINNATI:
PRINTED AT THE ECLECTIC MEDICAL PUBLISHING OFFICE.
1852.



#### CORRESPONDENCE.

At a meeting of the Students of the Eclectic Medical Institute of Cincinnati, held in the Hall of the College Edifice, Nov. 11th, 1852, Thos. R. WARD was called to the chair, and Charles C. Moore was appointed Secretary.

On motion, Resolved, That a Committee be appointed to solicit of Prof. W. Sherwood, a copy of his Introductory Address delivered before the Class in Greenwood Hall, Nov 10th; and that such Committee consist of one representative from each State represented in the class.

THOS. R. WARD, Chairman.

CHARLES C. MOORE, Sccretary.

Cincinnati, November 20th, 1852.

PROF. W. SHERWOOD:

Dear Sir,—The intelligible manner in which you set forth the principles of a more liberal Medical Education in your Introductory Address, induced us to believe that a general diffusion of such principles, would give a new impetus to reform. We, therefore, on behalf of the Class, respectfully solicit a copy for publication.

Respectfully Yours,

N. G. LYNCH, Mich.,

J. BROTHERS, Penn., J. B. Johnson, S. C.,

D. T. Pariott, owa,

J. D. Collins, Tenn.,

I. TIBBETTS, Ky.,

C. W. JEFFRIES, Mo.,

S. McIntyre, Ill., L. J. Jones, N. C.,

E. H. LAKE, Maine.

WM. A. LEVANWAY, N. Y., Ch'n.

THOS. R. WARD, Ala., Sec'y. J. L. ISAACS Ark.,

T. J. FENTRESS, Va.,

T L. FALKNER, la.,

J. Anton, Ga.,

J. A. CARLISLE, Miss.,

B. W. SPEAR, Ohio,

C. G. Cross, Wis., W. S. SEVERANCE, Mass.,

M. DUNSTER, Vt.

Cincinnati, Nov. 22th, 1852.

GENTLEMEN, -Your very polite note of the 20th inst is received, requesting in behalf of the Class of the Eclectic Medical Institute, a copy of my Introductory Address for

Notwithstanding the imperfections both in method and matter, which characterize the Address referred to, I cannot interpose any objection to its publication, in opposition to the wishes of the Class before whom it was delivered. If a production so hastily prepared, and so humble in pretension, may conduce to "give a new impetus to reform," its author will be far over paid for the brief time and effort devoted to its preparation.

With sentiments o cordial regard for the large and intelligent Class you represent, permit me,

Gentlemen, to subscribe myself,

Your Ob't Serv't, WM. SHERWOOD.

To W. A. LEVANWAY, N Y., THOS. R. WARD, Ala., and others of Committee.



## Professor Sherwood's Introductory Lecture.

The age in which we live has been so frequently styled the age of progress, that the expression has become common-place and stale. Still, it is difficult to approach the discussion of a topic having relation to human interests, without adverting to the astonishing changes which have occurred within the last half century, and to those which are now being produced in the various

departments of human life.

The discoveries of science have, in many respects, revolutionized the views, sentiments, and modes of life of entire nations. So sudden and so frequent, too, have these discoveries become, that we have almost lost the susceptibility to surprise by announcements of this nature. How brief the space that elapsed between the conception in the mind of John Fitch of the practicability of steam navigation, and the substitution of floating palaces for the keel and flat boats on our rivers! And how quickly did this idea expand into a system of international commerce, which, by means of ocean steam navigation, almost brings the ends of the earth together! How soon after the experiment of Franklin with his kite, is a whole continent converted into a whispering gallery by the invention of Morse!

And it is truly astonishing to observe with what facility the habits, customs and interests of community are conformed to, and identified with, the various and radical changes thus produced. A new discovery is announced, revolutionizing some department of human business. For a brief space it meets with opposition and curses, from those whose business it affects or perhaps destroys; but very soon all complaint is stilled, the ranks of mankind are re-arranged in a trice, and all are again pressing forward in the prosecution of industrious pursuits! The introduction of a labor-saving machine to-day, throws out of employment a multitude of workmen, upon whose labor depend helpless families. To-morrow those men are occupied in other business, equally profitable, while they enjoy in common with all others the advantages of cheapness and superiority in the products of the new discovery!

The property invested in horses, wagons and coaches, to accommodate the inland commerce and travel of a certain district, is withdrawn to some other section, or transferred to other pur-

suits, on the construction of a canal. Then the canal stock is ruined by a railroad. A little complaint is heard at first, but the whistle of the locomotive and the clatter of the train drowns it all: and none wish to have it otherwise! And now the fathers and mothers of the land may be seen whirling over the plains, and along the valleys, and through the tunneled mountains, at the rate of 40 miles an hour, and scarce can endure with patience the time lost in watering and feeding the iron courser, who, but a few days ago, would not trust the boys to drive the carriage for fear that everything would be staved to atoms by a velocity of four

miles an hour!

We live in remarkable times and in a remarkable country. How many of this audience can tell at a word and with absolute certainty the number of States which compose the North American Republic? Or, how many Territories there are at the threshold of our Union knocking for admission? One needs to go to school half the time, to avoid losing all his knowledge of the political geography of his own country! And the discoveries, revolutions and modifications so constantly occurring in all the departments of art, science, literature, &c., require a man to be a constant and active student, if he would not be behind the times. By the way, speaking of schools, and sciences, and students, reminds me that in the matter of popular education, in regard to what is taught, the modes of teaching, and the facilities afforded to all for instruction, there has been an advancement as marked and as salutary as in any other department of human concerns. Who now thinks of limiting the knowledge of the farmer or mechanic to the rudiments of letters and numbers? Yet it is but a short time since instruction in reading, writing, and arithmetic to the Rule of Three, not only fulfilled the law, (as I believe it does still), in regard to wards and apprentices, but constituted the utmost boundary of the education which parents generally sought to bestow upon their children.

And what an advance has been made in the modes of instruction! Who would willingly witness a return to the old regime of the ferule, the dunce block, and the long, dull, tedious task, which have been so happily supplanted by the map, the diagram, and oral lecture, with the various other fascinating methods pertaining to the inductive mode of instruction?

And then there is our glorious free school system—those colleges for the masses! Who would give up this greatest of all boons which the spirit of the age has conferred upon us, and return to the old system of colleges for the wealthy, schools for the mediocrity, and nothing for the poor? Cheap and thorough instruction for all, with ample facilities for classical and professional education, is the highest manifestation of that all-pervading spirit of progress which agitates and energizes the present generation.

But what, it may be asked, has all this to do with the practice

of medicine, or the duties and interests of a class of medical students? I reply, much. It has very much to do with us as teachers -with you, gentlemen, as present students and future practitioners, and with the community who are to be either blessed or cursed by your practice. I hold it to be our duty as medical teachers and practitioners to enquire whether we are keeping pace with the march of improvement, at which we have just glanced, and if not, to quicken our steps. That it is your duty as students to ascertain whether you are imbibing a spirit of liberality and professional progression, consonant with the sentiments of an enlightened American community; or, whether you are drinking at a fountain from which flow out the adulterated waters of Conservatism, impregnated with the bitterness of persecution and the poisonous absurdities of the dark ages. And that it belongs to the community to enquire whether their lives and health are intrusted to men who will give them the benefit of those improvements which science has developed and which experience approves, in the hands of liberal and enlightened reformers.

I will not now assume a position either affirmative or negative on the question—whether the medical profession, in the adoption of liberal sentiments, and in the promotion of medical science, is keeping pace with the onward rush of the age; though I must say, that upon the whole, I seriously doubt it. But I will remark that their lies open before the profession a highway of progress, of philanthropy, and professional elevation which it is their duty to pursue with promptitude and energy. I refer now to a general diffusion of scientific and statistical medical knowledge among the people. And it is to call attention to, and urge the importance of proper efforts to that end, that I appear on the present occasion.

It has long been asserted that ignorance is the parent of superstition. This is no more certainly true than the proposition that ignorance favors the practice of charlatanry in medicine. The grossly ignorant and superstitious may seek for health in the waters of a charmed spring, at the altar of a patron saint, in the talismanic influence of some cherished relic, or under the manipulations and hocus pocus of a seventh son, but these and a thousand other specimens of credulity on the one hand, and knavery on the other are driven before the light of general intelligence resulting from a system of universal education.

But there are other species of imposition which present themselves in a more specious form and more respectable guise, from which the most accomplished education in science, literature and general knowledge is no certain protection. Indeed, I have thought, that persons who have spent most of their time in scientific and literary pursuits, so habitually trust all their earthly interests to the management of others, that they are ready to become the most easy victims of false practice in the hands of those, who, with no other qualifications than assurance and an air of learning, insinuate themselves into such society as guardians of health.

I have thought also, that my observation has warranted the conclusion, that a theological or legal education rather leads to unquestioning reliance, in matters concerning health, on the opinions of professional medical advisers, however unscientific or absurd such opinions may be. In fact, some of my clerical acquaintances appear to be especially liable in this respect. The amiableness of true piety, and the habit of faith which the good man cherishes, seem to remove suspicion from his mind, and prepare him to follow blindly the advice of one who, with an appearance of great sincerity, claims the qualifications of a scientific

I do not say that men should not repose confidence in medical advisers. On the contrary, the physician, when employed, should by all means enjoy undoubting reliance on the part of the patient and his family. But that trust should be intelligently bestowed. Every individual in community should be prepared to make a judicious selection: first, of the system of medication on which he will rely; and, recondly, of a properly qualified practitioner as a medical adviser. Now it is absolutely certain that nothing short of a general acquaintance with the science and statistics of medicine can prepare any person to make an intelligent choice in

this matter.

The results of a general education of the masses in the sciences and facts connected with medicine, its uses and abuses, would be two-fold: First, its influence on community; Secondly, its in-

fluence on the profession.

It would elevate the standard of general intelligence. The sciences embraced in the study of medicine are such as must increase the stock of general knowledge, expand the intellectual capacity, and, if rightly pursued, improve the heart. These sciences are but a development of the laws of nature around us and within us; or descriptions of the most delicate and interesting

organisms resulting from the operation of those laws.

Are the laws which rule inorganic matter worthy our attention? is it important that the various departments of mathematics, pure and mixed, should be studied? That men should be able to reduce equations, demonstrate theorisms., solve problems, and understand the doctrines of fluxions and conic sections? Is it a matter of moment that our children should learn geography, natural philosophy, astronomy, &c., not only for the purpose of storing their memories with practical truth, but of enlarging their capacities and giving strength and elevation to their minds? And will not the study of Anatomy and its kindred sciences, Physiology and Pathology, be equally useful and salutary? Sciences which describe, not distant countries, mountains or rivers, that your learner may never see; which develope not the laws of gravitation that govern worlds revolving in illimitable space; nor yet the cold, abstract certainties of pure mathematics; but which describe his own body, its general and special characteristics; its tissues, structures and organs; its solid substances and various fluids; its complicated systems, arranged for the accomplishment of the functions of organic and animal life: point out and define the laws which preside over and govern these systems in health and in disease. In short, make him acquainted with his own home—

with the dwelling-place of his own spirit!

Organic Chemistry, also, as well as Therapeutics and the Materia medica are so intimately connected with all that is interesting in natural philosophy and history, that their study must secure a vast acquisition of knowledge, highly important in every point of view, besides its relation to health and disease. And is it not remarkable, that—while society would call one an ignoramus who knew little or nothing of the ancient or modern history of nations, or who could not give an intelligent account of the form of government and laws of his own country—it is scarcely regarded as a defect in our education to be utterly ignorant of the constitutional organization of our own persons, and with the laws by obedience to which we secure health and happiness; and of which a violation is treason against nature, punished by disease and death.

The statistics of medical practice, too, are full of interest to every class of community. If the increase of population, the amount of agricultural products, and the results of manufacturing and mechanical skill; the amount of metals obtained from our mines, and of coins struck at our mints, the tonnage of our vessels and the exports and imports of commerce, be interesting items of information for all, why is it not equally important to publish full and authentic bills of mortality, and histories of successful treatment as pertaining to every system, school and method of practice. Here is a vast source of interesting popular information which, up to the present hour, has been accessible only to the profession, because the profession has opposed or discouraged its general diffusion, or at least, neglected to promote its dissemination.

But another result of public information on this subject would be a salutary influence on the habits of community in regard to medication. General information in respect to hygiene would promote general health and very much diminish the demand for medicine. Mankind, possessing correct knowledge of the laws of health, would, to a certain extent at least, conform their habits to those laws; and thus the health and physical stamina of our race would be improved. And when malaria, epidemics, contagion, or casualties should render medical treatment necessary. there would be no indiscriminate swallowing of patent nostrums; no consulting with mystical or ignorant pretenders. Mysticism and humbug of every name, whether denominated regularism or quackery, would have disappeared before the spreading light of public intelligence; and no unsound system nor incompetent practitioner would obtain support or patronage in a community competent to examine and decide medical questions.

It may be objected, that such a state of society would ruin our profession by enabling the people to become their own physicians. In reply, I would say, if it be possible to fortify the health of mankind so that serious disease shall be unknown, and death shall never pursue his victim in advance of the footsteps of time, Heaven hasten the day. But until then medicine and medical advice will be in requisition; and, as the most intelligent physician will not prescribe for himself when seriously indisposed, so the habit of indiscriminate domestic dosing, which ruins so many constitutions and destroys so many lives, would, in the main, be abandoned by a medically instructed community; and men and women would trust their lives and health in the hands of those only whom they knew to be competent physicians. It was once feared by priests that a knowledge of the bible and theology among the masses would destroy their craft. And so it does. But is there less demand now for the services of a pious and intelligent ministry than there was formerly for the ministrations of the sanctuary when all spiritual knowledge was locked up in monastic libraries? Surely not. Well, what revelation is to the soul and its interests, true medical science is to the life, health and comfort of the physical man:—an exposition of those laws by which good may be attained and evil shunned. And the results would be similar should a knowledge of these physical laws be publicly enjoyed. Error, mysticism, professional arrogance, and school-craft would cease to govern in medicine, and liberal sentiments, rational theories, and successful practice would gain the ascendant. The entire profession, finding it necessary in order to claim the public confidence to take advanced ground, would press on with accellerated activity in the direction of reform and progress; and "old physic," instead of attempting to sneer or frown down the rising genius of his young rival, would engage in a friendly yet energetic contest for public confidence; and soon, we may hope, convinced of the errors of his system and the hopelessness of his cause, acquiesce in a virtuous necessity, and adopt the doctrines of truth, and imbibe the spirit of liberal reform.

This second result of public intelligence on medical subjects, would do more to dignify, and purify, and elevate the medical profession than exorbitant tuition fees, stately edifices, professional censorships, or solemn binding oaths administered to grad-

uates, have ever done or can ever accomplish.

But, I am told this is a visionary view which can never be realized. Perhaps not fully, yet it surely may approximately. And if so great a good be possible even in conception, every step towards it is a positive gain; and continued effort may, and I doubt not will, accomplish more than is now anticipated by the most sanguine.

Divine revelation warrants us in believing that a day is coming when sin, and sorrow, and tears shall cease on earth—when the

nations shall learn war no more; when all feuds, and animosities, and cruelties shall be brought to an end; and it is believed by eminent commentators, that sickness and death will be very rare in that millennial age. Now for this glorious day the christian church is looking and praying, and to hasten its advent she is putting forth her utmost efforts. And in what do these efforts consist? In diffusing moral light; in scattering broad-cast over the whole face of the earth volumes of Divine truth as seed from which she expects to reap so glorious a harvest. Let us, as colaborers in the cause of humanity, pursue a similar course, and open to the eyes of our fellow men, everywhere, those pages of philosophical and experimental truth which are treasured up in the archives, or are being daily developed by the researches and experience of our profession. Truth which, as the world progresses in moral improvement and virtuous developement, shall secure to man better health and longer life in which to improve himself and bless his race.

Let us now enquire what course should we pursue to promote,

as far as practicable, so desirable an object?

1. Let us encourage the laudable efforts which are now being made in many places to introduce Anatomy and Physiology into the public schools as ordinary branches of education. To these should be added Pathology, Organic Chemistry, Botany and Therapeutics to a certain extent at least. This will lay the foundation for a state of popular intelligence on medical subjects to which the world has hitherto been a stranger.

2. Let us adopt the plan of lecturing on these subjects to such audiences as we may be able to obtain in our various localities or travels, and by this means we shall gradually indoctrinate the

people and increase the stock of public information.

Why should the physician locate himself in a community and spend his entire time and energies in curing disease, while he possesses information which, if made public, would do much to secure the health and lives of those around him? It has been said with truth that the interests of the community and of medical practitioners are antagonistic—that the physician thrives by public calamity. But let the intelligent practitioner diffuse medical intelligence among his neighbors, and they will soon be ready to compensate him more liberally for preventive than curative skill. The physician should not only be a practitioner, but a teacher of practical and scientific medical truth.

3. Another method of accomplishing the same end is the circulation of facts, statistics, and the new developments and discoveries in medical science, in the form of tracts, and periodicals. "The platform, the pen, and the press," are working wonders in the various departments of human affairs; and while as above suggested we employ the first of these agencies, let us not neglect the other two. Let us press them all into the service of rational

scientific medicine. Let us reflect from these a blaze of well attested truth upon the length and breadth of our land, so that they who have heretofore sat in darkness, to borrow a passage from holy writ, may see a great light, exposing all professional and popular errors, inconsistencies, and falsehoods; and demontrating the beneficent tendency and spirit of our glorious reform. I do not claim this as an original suggestion by any means. Our predecessors have been pursuing this course to some extent, and let us enter into their labors and improve on their example. Individual enterprise is now doing much in this way and should be seconded by the efforts of all, for all should bear a share of the burden in carrying forward the triumphs of our glorious cause.

4. But there is another enterprise to which I desire to call special attention, and upon which I would, if possible, concentrate the entire influence of the true friends of medical science. I refer to the project of placing a thorough collegiate medical education within the reach of all. You, gentlemen, are now enjoying the benefit of an experiment for this purpose. I said experiment—I recall the term. The enterprise is already on the full tide of triumphant success, with a decided majority of all the medical students in Cincinnati, crowding the halls of our institution.

This enterprise may not be fully comprehended, and I shall here take occasion to explain its nature; and first, permit me to refer to the ordinary plan of conducting medical colleges, especially

in this meridian and latitude.

The students in some of these colleges are composed of at least three classes. 1st. Gratuitous students, or one from each judicial district to whom the professors tickets are issued without fee. 2d. Trusted students, or those whose attendance has been secured by a slow note, which frequently as experience has shown, amounts to about the same as a gratuity. 3d. Paying students, or those whose ready cash sustains the institution; that is pays expenses, interest on debts and bonds, and salaries of professors. This system all must see at once is both unequal and unjust.

A second principle which obtains in the fashionable colleges of the day is, that high fees though merely nominal as to some of the students, add dignity to the institution, and confer respectability upon her graduates; and a proposition for a more liberal system

is treated with a sneer.

Our enterprise is based upon principles entirely different from these.

First, our students all come in on the same terms, and those terms are cash. We have none of what are tersely denominated "dead heads" in our school.

Secondly, we rely upon the results of our instructions, upon the proficiency of our graduates, and the success of their practice when they shall go out from our halls, to secure a respectable standing in community, both for the alma mater and her alumni.

Thirdly, we send none of our students out into the world encumbered with a debt for tuition, which must bear like an incubus upon an honest and sensitive young man; and those who happen to have money, more than will pay their expenses during their attendance at college, are permitted to employ it in obtaining books and other necessary equipments for the medical practitioner, instead of leaving it to line the pockets of professors.

Fourthly, We expect, by the liberality of our terms, to enable our matriculants to continue their attendance until they shall be thoroughly instructed ln every department; and this is an important point to be attained. It is a notorious fact that owing to the enormous tution fees generally exacted by medical colleges, a large majority of their matriculants are compelled to practice for years after hearing lectures for a single session; and this day there are thousands of practitioners scattered over the land, who have not as yet been able to secure a second course, and are consequently without any evidence of their professional standing. Now if practising medicine without adequte preparation, and without a diploma constitutes quackery, your high toned, high priced, medical colleges are filling the land with quacks.

Finally, we expect to collect within our walls not merely those who intend to become medical practitioners, but intelligent ladies and gentlemen, who are seeking a thorough acquaintance with those interesting and important branches of education which

are efficiently taught in medical colleges alone.

Such is our enterprise, and such its objects and aims. Its pretensions are modest, but its influence must and will be extensive and salutary. Prophecies are uttered foretelling its failure, but the wish is parent to the prophecy in every such case. We may fail, but no such omens now appear. Of one thing I am certain, could we enjoy the patronage of the taxing power of Ohio; could we divert into our treasury the auction duties collected in Cincinnati for thirty years; could we have our debts cancelled from time to time, by the state government; could we have a hospital erected and sustained for our benefit, and a library and apparatus provided at public expense; could we claim to pledge the faith of Ohio for the redemption of bonds upon which to build us a spacious edifice; could we do all this, we should I am confident, be able not only to maintain our position and sustaln our enterprise, but draw to our halls more students than are now matriculated in all the medical colleges in the State.

I do not complain of the liberality of the State to other institutions. The government and the public should see to it that adequate means of education in medicine, as well as in science, literature, and theology are provided. And I see no reason for donations and liberal enactments for one any more than another of these institutions. Medical colleges should be endowed at

public expense.

And here, permit me to appeal to you gentlemen, and through you, to the various communities you represent; and permit me also, fellow citizens of Cincinnati, in whose city our college is located, to appeal to you, and through you to the legislature of Ohio, for support and encouragement in our undertaking. The faculty of the Eclectic Medical Institute ask no high salaries; for although they do not feel, and will not be guilty of the affectation of professing, indifference to pecuniary rewards, as is sometimes done from the professor's chair; still for the sake of liberal principles, of true science, and of a rational American system of medication, we are willing to labor hard with no prospect of adequate pecuniary reward. But while we labor for the cause of reform, while we strive to enlighten the community and furnish them with competent physicians, let us at least have the satisfaction of believing that our efforts are appreciated, and that should we ever fail through excessive toil, or want of means, other hands are ready to sustain our excellent cause.

And may we not ask even more than this? If our cause is right and our efforts proper, may we not expect to be seconded by "material aid?" We need a new college building, and must have one, so that we may receive all who apply for instruction; and not be compelled as now, to lecture eight months instead of four, for want of room to accommodate all our annual matriculants at one time. In this matter a small investment of the spare capital ln your midst might do much in promoting this

noble enterprise.

And then will you not once more unite with us, as more than 10,000 of your citizens did last spring, in petitioning our state legislature for an equal participation in institutions supported by public funds? I mean the Commercial Hospital of Cincinnati.

and the medical library of the state of Ohio, in this city.

Could our repeated applications in regard to the hospital, secure a deserved response, a most prolific source of reliable statistical thuth would be opened to the public, tending directly to the dissemination of the very information which community needs, in regard to the relative success of rival modes of practice. As affairs stand now, every party publishes its own statisties, and neither having confidence in the report of others, and the public little in any of them, the matter is left in utter darkness. But let public hospitals like the one just referred to be opened to the different systems of practice, let separate wards be assigned to each, allowing patients the choice of the wards they will enter; let full and accurate records be kept of all cases of disease treated. the prescriptions and results; let these be published quarterly; and thus let the people have official and reliable information; and then let rival schools in medicine rise or fall by a truly adjusted scale of merit.

Such gentlemen, is an outline of our plan for diffusing medical

knowledge and prosecuting our reform. If it meet your approbation we bespeak your hearty and efficient co-operation. If a better plan suggest itself to your minds let us be favored with your views. But let oneness of purpose and union of effort be our watchword, while we labor in this cause for the good of our

common humanity.

And let us be encouraged by what has been accomplished, to persevere in hope of still more signal triumphs. Triumphs not of man over man in brutal strife, not of one politician over another in partizan struggles; but triumphs of truth over error, of liberalism over exclusiveism, of the spirit of American philanthropy over that of European selfishness and dogmatism. When we look over the history of the last few years and perceive the progress which has been made; the prejudices, difficulties, and obstacles which have been overcome; when we mark the steady advance which our cause has made both in regard to the resources of Eclectic medicine and its successful application in practice; we may with confidence look forward to a time, and that not very distant, when our whole country shall be supplied with intelligent practitioners, when the masses of our countrymen shall be enlightened on medical subjects, and health and length of days shall be secured to our race as far as science and rational medication can avert disease and death.